

**IN THE DRAWINGS:**

Figure 13 has been corrected in that the G signal should be Q signal, which stands for quadrature.

**REMARKS**

The Applicant has filed the present Response in reply to the outstanding Official Action of January 5, 2005, and the Applicant believes the Response to be fully responsive to the Official Action for reasons set forth below in greater detail.

At the onset, we would like to thank the Examiner for indicating that Claims 14 and 24 have allowable subject matter.

Additionally, Applicant would like to note that Claims 1, 7, 15, and 17 have been amended herewith. Specifically, Claim 1 has been amended to recite that “measuring means for measuring strength of a received electric field from said first and second reception antennas during the predetermined time interval and adding said measured strength of said received electric field from said first reception antenna to produce a first accumulated amount and adding said measured strength of said received electric field from said second reception antenna to produce a second accumulated amount; and selecting means for selecting, in response to said first and second accumulated amounts one of said first and said second reception antennas.” A corresponding amendment was made to method Claim 15.

Claim 7 has been amended to clarify the predetermined time interval as being a first predetermined time interval and a second predetermined time interval. A similar clarifying amendment has been made to method Claim 17. The first predetermined time interval corresponds with the calculation of the first accumulated amount of the strength and the second predetermined time interval corresponds with the calculation of the second accumulated amount of the strength.

Additionally, Applicant would like to note that Claims 4-6 have been amended to overcome the Examiner's objections.

Applicant submits that all of the claims presently pending in the application are patentably distinct from the cited references.

In the outstanding Official Action, the Examiner rejected claims 1, 2, 15, and 16 under 35 U.S.C. §102 (e) as being anticipated by Kenkel et al., United States Patent No. 6,296,565 (hereinafter “Kenkel”). The Examiner rejected claims 1 and 15 asserting that Kenkel teaches a digital multiple reception apparatus/method that includes a first and second reception antenna reception level, a control means, a measuring means and a selecting means for selecting, in response to a measured result, either the output of the first or second reception antenna.

Applicant respectfully disagrees with the Examiner and traverses the rejection with at least the following analysis.

Kenkel et al., United States Patent No. 6,296,565 (hereinafter “Kenkel”) teaches that the “determination of when to begin de-attenuating signals from one antenna and to attenuate signals from another antenna is made by the microprocessor by converting the RSSI signal to a numerical value and arithmetically calculating a running average of the value using a previously calculated average signal level value”. See Col. 4, lines 29-35. Peak values of the average value are then used to calculate an RSSI threshold level that is used to determine when to begin switching the antenna using PIN diodes.

If the average RSSI level goes below the threshold level, the microprocessor will output signals to de-attenuate signals from one antenna and attenuate signals from another antenna. This running average is continuously calculated. Determining when to switch antennas using the

PIN diodes is accomplished by using a running average of the RSSI and a historical peak running average RSSI value.

The measured value in Kenkel is not the same value as used in the instant application. Therefore, the selection means in Kenkel does not select “in response to **said first and second accumulated amounts** one of said first and said second reception antennas”, as recited in Claim 1. Additionally, Kenkel fails to teach the selection step of Claim 15.

In the disclosed embodiment of the invention, the determining portion 74 compares a first accumulated value of the received electric field during the first half of the first through third time slots (S1 to S3) with a second accumulated value of the received electric field during the latter half of the fourth through sixth time slots (S4 to S6).

This determining portion determines a first total value of a first electric field integrated value and a second total value of a second electric field integrated value such that the determining portion can determine whether the first input electric field from the reception antenna 21 is stronger or the second input electric field from the second reception antenna 22 is stronger. The determining portion 74 produces a determining result which is supplied to the control voltage holding portion 76.

This simplified calculation as recited in Claim 1 of “**adding** said measured strength of said received electric field from said first reception antenna to produce a first **accumulated amount** and **adding** said measured strength of said received electric field from said second reception antenna to produce a **second accumulated amount**” and in Claim 15 “a calculating step of **adding** said first measured strength value from said first reception antenna to produce a **first accumulated amount** during the predetermined time interval and **adding** said second measured strength value from the second reception antenna during the predetermined time

interval to produce a **second accumulated amount**" only uses an adder whereas the prior art uses both adders and a divider for its calculation. Kenkel calculates an average value of the signal strength that is received.

Moreover, the present invention performs a different section than the prior art reference. The present invention selects, in response to said first and second accumulated amounts, one of said first and said second reception antennas. Kenkel is concerned with signal dropout and fading by predicting fading. Kenkel compares a signal from a first antenna with a predetermined value and switches antenna sources when the signal value is lower than the predetermined value. Kenkel selects an antenna source based upon this comparison.

Accordingly, Kenkel does not teach or suggest each and every element of independent Claims 1 and 15 and thus cannot anticipate them. Claims 2 and 6 are patentable based upon their dependency from Claims 1 and 15, respectively.

The Examiner also rejected Claims 3-6 under 35 U.S.C. §103(a) as being unpatentable over Kenkel in view of Niki, U.S. Patent No. 4,620,147.

Claims 3-6 are directed to a first and second attenuating means which is composed of a T-type attenuator. The Examiner avers that Niki discloses an attenuating means composed of a T-type attenuator having the claimed constitution. The Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt a T-type attenuator which would vary the control voltages supplied to the first and second attenuating means as a system design choice serving the same function.

In addition to Claims 3-6 being patentable based upon the above-cited reasoning, as Niki does not remove any of the aforementioned deficiencies, Claims 3-6 are further patentable over the references for at least the following additional reasons.

Applicant respectfully disagrees with the rejection and traverses with at least the following analysis. The Examiner fails to provide a proper motivation to modify the reference nor has the Examiner found a reference that illustrates that this modification to Niki would be a system design choice. The proper standard for obviousness includes reviewing the references for a desirability for modifying the references. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). The motivation can come from the nature of the problem, the reference, or common knowledge. Id. The Federal Circuit stated:

[V]irtually all [inventions] are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be “an illogical and inappropriate process by which to determine patentability.” To prevent the use of hind sight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. The Board [of Appeals] did not, however, explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination. ... To counter this potential weakness in the obviousness construct the suggestion to combine [modify] requirements stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.

In re Rouffet, 47 USPQ2d 1457-58 (Fed. Cir. 1998) (citations omitted, emphasis added).

The Examiner makes no showing of the state of the art at the time of the invention evidencing that those skilled in the art appreciated the problems solved by the present invention or even contemplated the need for the system which the Examiner argues *would result* from the combination and modification of Kenkel and Niki. That the

modification and/or combination of references *would result* in a claimed invention is only part of the 35 U.S.C. § 103 analysis. The Examiner must also show a motivation or suggestion for modifying the references. This the Examiner has not done. Such conclusory statements are insufficient to show a motivation or suggestion to modify the references. Ecolochem, Inc. v. Southern California Edison Co., 227 F.3d 1361, 1372, 56 USPQ2d 1065, 1073 (Fed. Cir. 2000).

The Examiner solely states that such a modification is a “system design choice serving the same function as to gradually control the attenuation of the received signal.”

While Niki does suggest that the T-type attenuator can be replaced by another circuit arrangement that can change the level of a signal such as a variable gain amplifier, using a T-type attenuator as the first and second attenuating element is not just a system design choice. Furthermore, the Examiner fails to provide any motivation to combine Kenkel with Niki.

Accordingly, the hypothetical combination of Kenkel and Niki fails to teach, suggest or render obvious each and every limitation of Claims 3-6 under 35 U.S.C. § 103(a).

The Examiner further rejected Claim 7, 8, 17 and 18 under 35 U.S.C. §103(a) as being unpatentable over Kenkel in view of Nakamura, United States Patent No 6,243,563.

The Examiner contends that Nakamura teaches a measuring means that measures a first accumulated amount of strength of the recorded electric field in a first half within the predetermined time interval and a second accumulated amount of strength of the received electric field in a later half within the predetermined time interval, and a selecting means for selecting one of the first and second reception antennas in accordance with the comparison result between the first and second accumulated amounts.

The Examiner concludes that it would have been obvious to make such a combination to one of ordinary skill in the art, to properly measure the strength of the received electric field from the first and second antennas and switch them accordingly.

Furthermore, in addition to the above-cited reasoning with respect to Claims 1 and 15, Claims 7, 8, 17 and 18 are patentable over the cited references for at least the following reasoning.

Nakamura, United States Patent No 6,243,563 discloses a TDMA (Time Division Multiple Access) system. The system includes two separate radio antennas attached to two separate switches: a reception dedicated switch, and a common switch. These switches are used to separate the receiving portion from the common switch.

Both switches have a low and high control signal portion. Transmission in this system is done using time slots. Each time slot has a leading and trailing edge. The switches are controlled such that signals from the reception dedicated antenna and the common antenna are not set simultaneously. The first half of the time slot is used by the reception dedicated side and the second half of the time slot is used by the common antenna.

The system calculates an RSSI signal for the reception dedicated common antenna during the first half of the slot and calculates an RRSI for the common signal during the second half of the same time slot. The switch controller receives the RSSI signal for the reception dedicated in the first half of the time slot and then receives the RSSI signal for the common antenna in the second half. A comparison is made and the switch switches the antenna based upon the comparison, specifically, switches to the antenna with the highest RSSI value.

Nakamura, however, fails to teach a measuring means measuring the first accumulated amount of the strength of the received electric field in a first half within a first predetermined

time interval and the second accumulated amount of the strength of the received electric field in a latter half within a second predetermined time interval, said selecting means selecting one of said first and said second reception antennas in accordance with a comparison result between said first and said second accumulated amounts as recited in Claim 7 or a calculating step of adding said first measured strength value from said first reception antenna to produce a first accumulated amount during the predetermined time interval and adding said second measured strength value from the second reception antenna during the predetermined time interval to produce a second accumulated amount, as recited in Claim 15 .

In this disclosed embodiment, the receiver is a CDMA system, not a TDMA system which means that the data is simultaneously transmitted. Signals from antenna A and antenna B would occupy the same time slot and time period. CDMA uses continuous reception while TDMA reception carries out intermediately. Accordingly, the same structure switching techniques and measurement cannot be used. One of ordinary skill in the art would most likely not look to signal processing in a TDMA system to construct a CDMA receiver.

Additionally, since the signals in Nakamura are separately transmitted, e.g., first half for the reception antenna and the second half for the common antenna, separate measurement of the field is the only way to measure field strength. However, in the CDMA system of the present invention such a separate transmission is not apparent.

In the disclosed embodiment, first and second attenuated signals are combined into a combined signal which is supplied to the CDMA receiver, the attenuating amounts are independently controlled, and the first and second attenuation values are different from each other. In order to separate the signals for measurement, a slot electric field integrating circuit 72 and slot electric field determining portion is used. The slot electric field integrated circuit and

the slot electric field determining portion 74 function to accumulate a first and second input field during the first half and the later half of a slot respectively.

The integrating circuit 72 comprises a first and second register 721, 722 and adder 723.

See pages 21 and 22 of specification.

In a disclosed embodiment, the specification describes that the first accumulated value is calculated using a sum of the field strength values in the first half of three time slots and the second accumulated value is calculated using the latter half of the time slots. The first slot accumulated value is held in a first register, while the second accumulated value is held in the second register.

Nakamura does not teach using a summation of field strength values over a first predetermined time interval and a second predetermined time interval. Nakamura only switches a source of transmission based upon a comparison of RSSI values over **one** time slot.

Even if one of ordinary skill in the art would combine the references, one of ordinary skill in the art would not arrive at the claimed invention. Nakamura compares values from the same time slot. This comparison, as taught in Nakamura, would not work with the claimed invention since the attenuation values are varied over a predetermined number of time slots and therefore, the true signal strength for each antenna would not be compared.

This is the reason why the claimed invention calculates the first and second accumulated values over two different predetermined time periods or time slots.

Additionally, as stated above, in order to combine multiple references, there must be a motivation to combine. The Examiner has failed to provide a proper motivation. The Examiner respectfully invites the Examiner to provide a reference, which teaches or suggests all of the limitations of these claims.

Therefore, the hypothetically combined Kenkel and Nakamura fail to teach, suggest or render obvious each and every limitation of these claims.

With regard to Claims 9-13 and 19-23, the Examiner's rejected these claims under 35 U.S.C. § 103(a), only citing a general conclusion of obviousness. The Examiner summarily stated (i) a desire to reduce and save power as motivation; and (ii) that the differences or modification to the references do not involve any inventive ideas. In order to modify a reference, there must be a motivation to make such a modification. The Examiner has failed to provide this motivation. Applicant invites the Examiner to provide any reference that illustrates these teachings. Without such a reference, the Applicant submits that these claims are patentable over Kenkel under 35 U.S.C. § 103(a). Additionally, the Applicant submits that Claims 9-13 and 19-23 are patentably distinct from Kenkel based upon their dependency from independent Claims 1 and 15.

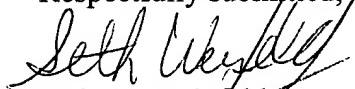
Lastly, the Applicant would like to note that Figure 13 appears to have a typo. The "G Signal" should be "Q Signal" standing for quadrature. Additionally, there appear to be several spelling errors in the specification. Applicant respectfully submits a replacement Figure 13 and an amended specification correcting these editorial errors. The amendments to the figures and specification do not add any new matter and are solely editorial corrections.

For all the foregoing reasons, the Applicant respectfully requests the Examiner to withdraw the rejection of Claims 1, 2, 15, 16 pursuant to 35 U.S.C. § 102(e). Additionally, the Applicant requests the Examiner to withdraw the rejection of Claims 3-13, and 17-23 pursuant to 35 U.S.C. § 103(a).

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the

Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,

  
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